D H E C
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Columbia, SC 29201-1708

MEMORANDUM

TO: Narindar Kumar
Branch Chief
Region IV EPA

THRU: Ken Taylor, P.G.
Division of Hydrogeology Director
Bureau of Land & Waste Management

FROM: Jack Gelting, P.G.
Hazardous Waste Section Manager
Division of Hydrogeology

DATE: September 26, 2000

RE: Evaluation of ITE Siemens' status under the RCRA Corrective Action Environmental Indicator Event Code CA725
EPA ID # SCD 078 065 117

I. PURPOSE OF MEMO

This memo is written to formalize an evaluation of ITE Siemens' status in relation to the following corrective action event code defined in the Resource Conservation Information System (RCRIS):

1) Current Human Exposures Under Control (CA725)

II. HISTORY OF ENVIRONMENTAL INDICATOR EVALUATIONS AT THE FACILITY AND REFERENCE DOCUMENTS

This particular evaluation is the second evaluation for ITE Siemens. A copy of the earlier memo is attached. Also attached is the Project Schedule for Meeting Environmental Indicators.

The earlier evaluation indicated human exposures were not controlled and determined that groundwater releases are controlled.

III. FACILITY SUMMARY

The regulated units, a Batch Dump Lagoon and Sludge Holding Basin, totaling more than 1.3 million gallons capacity, and various wastewater basins and clarifier have been inactive since the late 1980s. The only active SWMU is the Wet Well which is used as a point of confluence for treated process and groundwaters. Siemens now conducts groundwater monitoring and corrective action under a 1995 hazardous waste permit for post-closure care.

IV. CONCLUSION FOR CA725

Monitoring conducted at DHEC's request and analyses of drinking water from a production well at the neighboring Spartanburg Weekly Newspaper confirm that humans are not currently exposed to hazardous constituents from ITE Siemens. The CA725 code is YES. Please see the attached Documentation of Environmental Indicator Determination.

V. CONCLUSION FOR CA750

Releases of contamination to groundwater are not under control as per the original 1997 Environmental Indicator Evaluation. The CA750 code is NO. See the attached project Schedule for Meeting Environmental Indicators.

VI. SUMMARY OF FOLLOW-UP ACTIONS

Siemens shall continue to operate the groundwater extraction system. The system was recently reconditioned to address biofouling in extraction wells. Security and on-going monitoring will need to be maintained to continue to meet the standards set forth by the Environmental Indicators for RCRA Corrective Action.

Attachments: 1997 EI evaluation
Project Schedule for Meeting EIs
2000 Documentation of EI Determination for CA725

cc: David Rivers

ATTACHMENT ~~2~~
DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION
RCRA Corrective Action
Environmental Indicator (EI) RCRIS Event Code (CA750)
Migration of Contaminated Groundwater Under Control

Facility Name: ITE Siemens
Facility Address: 1320 Old Georgia Road, Rockuck, SC.
Facility EPA ID #: SCD 078 065 117

1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

   ✓ If yes - check here and continue with #2 below,

   ____ If no - re-evaluate existing data, or

   ____ If data are not available, skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e.,

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2. Is **groundwater** known or reasonably suspected to be **"contaminated"**[6] above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

✓ If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

____ If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

ITE Siemens at 1320 Old Georgia Road in Roduck, SC. conducts corrective action due to releases of volatile and metal contaminants to groundwater from the regulated units and wastewater units, all now inactive. Contaminants of concern include Volatile Organic Compounds, Semi-Volatile Organic Compounds, metals. Maximum Contaminal Levels have been exceeded for these constituents. See Annual Corrective Action Reports for 1998 and 1999. See the most recent data at the 2000 second quarter report dated July 2000. Also see the Groundwater Protection Standard in the 1995 hazardous waste permit for post-closure care.

6 "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

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____ If yes - continue after identifying potentially affected surface water bodies.

__✓__ If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s): Tributaries to the Ready River and the Ready show no evidence of contamination from Siemens. See 1998 and 1999 Corrective Action Reports.
See the most recent data in the Quarterly Report dated July 2000.

6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented[9])?

   _____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR
   2) providing or referencing an interim-assessment,[10] appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

   _____ If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

   _____ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):_____
_____
_____
_____
_____
_____
_____

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

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[9] Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

[10] The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

✓ YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the ITE Siemens facility, EPA ID # SCD 078 065 117 located at Old Georgia Rd., Roebuck SC. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

____ NO - Unacceptable migration of contaminated groundwater is observed or expected.

____ IN - More information is needed to make a determination.

Completed by (signature) _____ Date 9/29/00
(print) John Gelting
(title) Program Manager I
RCRA Hydrogeology

Supervisor (signature) G. Kendall Taylor P.G. Date 9/29/00
(print) G. Kendall Taylor
(title) Director Division of Hydrogeology, SC DHEC Bureau of Land & Waste Management
(EPA Region or State) S. C.

Locations where References may be found:

Bureau of Land & Waste Management (SC DHEC)
File # 051784

Contact telephone and e-mail numbers

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